



1600

RAW SEQUENCE LISTING

DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:56

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

4 <110> APPLICANT: Stanton, Jr., Vincent P.
 7 <120> TITLE OF INVENTION: GENE SEQUENCE VARIANCE IN GENES RELATED
 8 TO FOLATE METABOLISM HAVING UTILITY IN DETERMINING THE
 9 TREATMENT OF DISEASE
 11 <130> FILE REFERENCE: 11926-015001
 13 <140> CURRENT APPLICATION NUMBER: 09/658,659B
 14 <141> CURRENT FILING DATE: 2000-09-08
 16 <150> PRIOR APPLICATION NUMBER: 09/596,033
 17 <151> PRIOR FILING DATE: 2000-06-15
 19 <150> PRIOR APPLICATION NUMBER: 09/357,743
 20 <151> PRIOR FILING DATE: 1999-07-20
 22 <150> PRIOR APPLICATION NUMBER: 09/357,024
 23 <151> PRIOR FILING DATE: 1999-07-19
 25 <150> PRIOR APPLICATION NUMBER: 60/093,484
 26 <151> PRIOR FILING DATE: 1998-07-20
 28 <160> NUMBER OF SEQ ID NOS: 16
 30 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply
 Corrected Diskette Needed

P.4

ERRORED SEQUENCES

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 W--> 46 <221> misc_feature
 47 <222> LOCATION: 284, 1252, 1699, 5573, 5659, 5678, 5874
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 56 <223> OTHER INFORMATION: n = c or a
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60

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187 <223> OTHER INFORMATION: n = c or t

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Insert hard
return

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241	caacctcatgt	cctagtctct	ggtctgtggc	tctaccgtat	tggctccagt	gttgagtttg	2880
242	actggtgtgc	tgtaggtgc	atccagcagc	tccgaaagat	gggatataag	accatcatgg	2940
243	tgaactataa	cccagagaca	gtcagcaccg	actatgacat	gtgtgatoga	ctctaacttg	3000
244	atgagatctc	ttttgaggtg	gtgatggaca	tctatgagct	cgagaaccct	gaaggtgtga	3060
245	tctatccat	gggtggacag	ctgcccacaa	acatggccat	ggcgttgcat	cggcagcagt	3120
W--> 246	gcccgggtgct	gggcacctcc	cctgaagcca	ttgactcggc	tgagaaccgt	ttcaagtttt	3180
W--> 247	cccggtctct	tgacaccatt	ggtatcagcc	agcctcagtg	gagggagctc	agtgacctcg	3240
248	agtctgctcg	ccaattctgc	cagaccgtgg	ggtacccctg	tgtggtgcgc	ccctcctatg	3300
249	tgtctgagcg	tgtgctatg	aatgtggcct	acgcggatgg	agacctggag	cgcttcttga	3360
250	gcagcgcagc	agcgtctctc	aaagagcctc	ccgtggtcat	ctccaagttc	atccaggagg	3420
W--> 251	ctaaggagat	tgagtggat	gccgtggcct	ctgatgggtg	ggtggcagcc	atcgcoactc	3480
252	ctgagcatgt	ggagaatgca	ggtgtgcatt	caggtgatgc	gacgctggtg	acccccccac	3540
253	aagatatcac	tgccaaaacc	ctggagcggg	tcaaagccat	tgtgcatgct	gtgggccagg	3600
254	agctacaggt	cacaggaccc	ttcaatctgc	agctcattgc	caaggatgac	cagctgaaag	3660
255	ttattgaatg	caacgtacgt	gtctctcgct	ccttcccctt	cgtttccaag	acactgggtg	3720
256	tggacctagt	agccttggcc	acgcgggtca	tcatggggga	agaagtggaa	cctgtggggc	3780
257	taatgactgg	ttctggagtc	gtgggagtaa	aggtgcctca	gttctccttc	tcccgttgg	3840

RAW SEQUENCE LISTING

DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:56

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

258	cggggtgctga	cgtggtgttg	ggtgtggaaa	tgaccagtag	tggggagggtg	gccggctttg	3900
259	gggagagccg	ctgtgaggca	tacctcaagg	ccatgctaag	cactggcttt	aagatcccca	3960
260	agaagaatat	cctgctgacc	attggcagct	ataagaacaa	aagcgagctg	ctcccaactg	4020
261	tgcggctact	ggagagcctg	ggctacagcc	tctatgccag	tctcggcaca	gctgacttct	4080
262	acaactgagca	tggcgtcaag	gtaacagctg	tggactggca	ctttgaggag	gctgtggatg	4140
263	gtgagtgcc	accacagcgg	agcatcctgg	agcagctagc	tgagaaaaac	tttgagctgg	4200
264	tgattaacct	gtcaatgcgt	ggagctgggg	gccggcgtct	ctcctccttt	gtcaccaagg	4260
W--> 265	gctaccgcac	ccgacgcttg	gccgctgact	tctccgtgcc	cctaatacatc	ganatcaagt	4320
266	gcaccaaact	ctttgtggag	gccctaggcc	agatcgggoc	agccctcct	ttgaagggtg	4380
267	atgttgactg	tatgacctcc	caaaagcttg	tgcgactgcc	gggattgatt	gatgtccatg	4440
268	tgcacctgcg	ggaaccaggt	gggacacata	aggaggactt	tgcctcaggc	acagccgctg	4500
269	ccctggettg	gggtatcacc	atggtgtgtg	ccatgcctaa	tacccggccc	cccatcattg	4560
270	acggccctgc	tctggccctg	gcccagaagc	tggcagaggc	tggcgcccg	tgcgactttg	4620
271	cgtattcct	tggggcctcg	tctgaaaatg	caggaacctt	gggcaccgtg	gccgggtctg	4680
272	cagccgggct	gaagctttac	ctcaatgaga	ccttctctga	gctgcggctg	gacagcgtgg	4740
W--> 273	tccagtggat	ggagcatttc	gagacatggc	cctcccaact	ccccattgtg	gctcacgcmg	4800
274	agcagcaaac	cgtggctgct	gtcctcatgg	tggctcagct	cactcagcgc	tcagtgcaca	4860
275	tatgtcacgt	ggcaccgaag	gaggagatcc	tgttaattaa	agotgcaaa	gcaeggggct	4920
276	tgcagtgac	ctgcgaggtg	gtcccccacc	acctgttct	aagccatgat	gacctggagc	4980
277	gcctggggcc	tgggaagggg	gaggtccggc	ctgagcttgg	ctcccggccag	gatgtggaag	5040
278	ccctgtggga	ggacatggct	gtcatcgact	gctttgcctc	agaccatgct	ccccatacct	5100
279	tggaggagaa	gtgtgggtcc	aggcccccac	ctgggttccc	agggttagag	accatgctgc	5160
280	cactactcct	gacggctgta	agcgaggggc	ggctcagcct	ggacgacctg	ctgcagcgat	5220
W--> 281	tgcaccacaa	tcctcgggcg	atctttcacc	tgcnccgca	ggaggacacc	tatgtggagg	5280
282	tggatctgga	gcattgagtg	acaattccca	gccacatgcc	cttctccaag	gcccactgga	5340
283	caccttttga	agggcagaaa	gtgaagggca	ccgtccggcg	tgtggctcctg	cgaggggagg	5400
W--> 284	ttgectatat	cgatgggcag	gttctggtac	ccccgggcta	tggacaggat	gtachgaagt	5460
W--> 285	ggccacaggg	ggctgttct	cagctcccac	cctcagcccc	tgccacnagt	gagatgacca	5520
W--> 286	cgacacctga	aagaccggcg	cgtggcatcc	cagggtctcc	tgatggccgc	ttccatctgc	5580
287	gcggccgaat	ccatcgagcc	tccgacccag	gtttgccagc	tgaggagcca	aaggagaagt	5640
W--> 288	cctctcggaa	ggtagccgag	ccagagctga	tgggaacccc	tgatggcacc	tgtaccctc	5700
289	caccaccagt	accgagacag	gcattctccc	agaacctggg	gaccctggc	ttgtgcacc	5760
W--> 290	cccagacctc	acccctgctg	cactcattag	tgggccaaca	tatcctgtcn	gtccagcagt	5820
W--> 291	tcaccaagga	tcagatgtct	caactgttca	atgtggcaca	cacactgcgt	atgatgggtg	5880
W--> 292	agaaggagcg	gagcctcgac	atcctgaagg	ggaaggctcat	ggcctccatg	ttctatgaag	5940
293	tgagcacacg	gaccagcagc	tcctttgcag	cagccatggc	ccggctggga	ggtgctgtgc	6000
294	tcagcttctc	ggaagccaca	tcgtccgtcc	agaagggoga	atccctggct	gactccgtgc	6060
295	agaccatgag	ctgctatgcc	gacgtcgctg	tgtccggcca	cccccagcct	ggagcagtgg	6120
W--> 296	agctggcngc	caagcactgc	cggaggccag	tgatcaatgc	tggggatggg	gtcggagagc	6180
297	accccaccca	ggccctgctg	gacatcttca	ccatccgtga	ggagctggga	actgtcaatg	6240
298	gcattgacgat	cacgatggtg	ggtgacctga	agcacggacg	cacagtacat	tcctggcct	6300
299	gcctgctcac	ccagtatcgt	gtcagcctgc	gctacgtggc	acctcccagc	ctgcgcatgc	6360
300	cacccactgt	gcgggccttc	gtggcctccc	gcggcaccaa	gcaggaggaa	ttcgagagca	6420
301	ttgaggaggt	gcgtcctgac	actgatgtgc	tctacatgac	tcgaatccag	aaggaaacgat	6480
302	ttggctctac	ccaggagtac	gaagcttgc	ttggctcagtt	cactcctcact	ccccacatca	6540
303	tgaccggggc	caagaagaag	atggtggtga	tgcacccgat	gccccgtgtc	aacgagataa	6600
W--> 304	gcgtggaagt	ggactcggat	ccccngcag	cctaacttccg	ccaggctgag	aacggcatgt	6660
W--> 305	acatccgcac	ggctctgtta	gccacngtgc	tgggcccgttt	ctaggggcct	ggcttccctca	6720
306	gcctcttctc	tttaggccca	gctgctgggc	aaggaaattcc	agtgcctcct	acgggggcag	6780

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002

TIME: 09:10:56

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

307	cacacttaga	tattcctgga	catccagatt	gctcacatgt	gctgaccaca	cttcaggctc	6840
308	tggactggag	ctctctggca	tgggggtggg	gcctcagatg	ctggggccca	gtctgcccga	6900
309	tcttcattcc	tgcaccttaa	acctgtacag	tcatttttct	actgacttaa	taaacagccg	6960
310	agctgtccct	tg					6972

E--> 311 <210> SEQ ID NO: 3

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002
TIME: 09:10:57

Input Set : A:\11926-015001.txt
Output Set: N:\CRF4\11072002\I658659B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 179

Skipped Sequences(NEW RULES):

Sequence(s) missing. If intentional, please use the following format for each skipped sequence.

<210> sequence id number

<400> sequence id number

000

Seq#:2

VERIFICATION SUMMARY

DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

L:46 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:50 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:54 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:58 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:240
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1080
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1200
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1320
L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1680
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:3120
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:3180
L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5400
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5520
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5640
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5820
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5880
L:179 M:254 E: No. of Bases conflict, LENGTH:Input:2 Counted:7226 SEQ:1
L:179 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:9
L:179 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7224 Found:7226 SEQ:1
L:193 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:193 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:193 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:1 differs:2
L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:3420
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:4260
L:273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:4740
L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5220
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5400
L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5460
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5760
L:296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6120
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6600
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6660
L:311 M:214 E: (33) Seq.# missing, SEQ ID NO:2
L:325 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:540
L:336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:600
L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1680
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3420
L:387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3660
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3720
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3900
L:407 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:411 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:415 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:419 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:423 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4

VERIFICATION SUMMARY

DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:120
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:300
L:437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:780
L:441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1020
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1320
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1980
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2100
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2580
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2640
L:486 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:490 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:420
L:499 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:480
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:540
L:569 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:573 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1020
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1080
L:598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1440
L:615 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:619 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:623 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
L:629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:300
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:420
L:632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:480
L:661 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:667 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:671 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:675 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:679 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:683 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:1009 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1013 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1017 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1021 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1079 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:1083 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:1128 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1132 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1136 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1140 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1144 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1148 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1152 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1266 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:1318 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:1378 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:1382 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002

TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

L:1386 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:1445 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1449 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1453 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1457 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1461 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1514 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:1518 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:1522 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:1526 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16